

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,147,935 B2  
APPLICATION NO. : 10/073012  
DATED : December 12, 2006  
INVENTOR(S) : Jun Kamatani et al.

Page 1 of 12

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

ON THE TITLE PAGE [56] REFERENCES CITED:

Other Publications (Page 1, after Carmen Navarro), "Cytosin" should read  
--Cytosine--.

ON THE TITLE PAGE [56] REFERENCES CITED:

Other Publications (Page 2, after C.H. Chen), "Mat rials,"" should read  
--Materials--.

ON THE TITLE PAGE [56] REFERENCES CITED:

Other Publications (Page 2, after R.D. Chambers (second occurrence)),  
"Heptafluoro-quinolin" should read --Heptafluoro-quinoline--.

ON THE TITLE PAGE [56] REFERENCES CITED:

Other Publications (Page 2, after M. Gordon), "Catayst" should read  
--Catalyst--.

ON THE TITLE PAGE [56] REFERENCES CITED:

Other Publications (Page 2, after M. Gordon), "Quinolin ," should read  
--Quinoline,--.

ON THE TITLE PAGE [56] REFERENCES CITED:

Other Publications (Page 2), "Micro G. Colombo" should read --Mirco G.  
Colombo--.

ON THE TITLE PAGE [57] ABSTRACT:

Line 6, "represent" should read --L and L' represent--

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 4:

Line 57, "isoguinylyl" should read --isoquinoly--.

COLUMN 5:

Line 65, "group" should read --group--.

COLUMN 7:

Line 47, "atomg" should read --atom--.

COLUMN 10:

Line 2, "layer layer" should read --layer--; and  
Line 9, "election" should read --electron--.

COLUMN 25:

Table 4, Lines 89-93 should read

```
-- 89 Rh 3 0 Np2 Iq2 - - - - H H - - - - H H H H H H - - - -  
90 Rh 3 0 F1 Iq2 - - - - H H - - - - H H H H H H - - - -  
91 Rh 2 1 Ph Iq2 Ph Pr - - - H H H H H H H H H H H H H H H H  
92 Rh 2 1 Ph Iq2 Ph Pr - - - H CH3 H H H H H H H H H H H H H H  
93 Rh 2 1 Ph Iq2 Ph Pr - - - H H CH3 H H H H H H H H H H H H H H --.
```

COLUMN 27:

Table 5, "ph" should read --Ph--.

COLUMN 33:

Table 7, "220 H C8H17" should read --220 H H--.

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COLUMN 39:

Table 9, Lines 261-266 should read

--

No	A			
	R1	R2	R3	R4
261	H	C12H25	H	H
262	H	H	CF3	H
263	H	H	CF3	H
264	H	H	CF3	H
265	H	H	CF3	H
266	H	H	CF3	H

--.

COLUMN 40:

Table 9 (continued), Lines 261-286 should read

--

No	B						B'
	R5	R6	R7	R8	R9	R10	R5
261	H	H	H	H	H	H	H
262	H	H	H	H	H	H	-
263	H	H	H	H	F	H	-
264	H	H	H	H	CF3	H	-
265	H	H	H	F	H	H	-
266	H	H	H	CF3	H	H	-
267	H	H	H	H	H	H	-
268	H	H	H	H	CF3	H	-
269	H	H	H	H	H	H	-
270	H	H	H	H	H	H	-
271	H	H	H	H	H	H	-
272	H	H	H	CF3	H	H	-
273	H	H	H	H	H	H	-
274	H	H	H	H	H	H	-
275	H	H	H	H	H	H	-
276	H	H	H	H	H	H	H
277	H	H	H	H	H	H	-
278	H	H	H	H	H	H	-
279	H	H	H	H	H	H	-
280	H	H	H	H	H	H	-
281	H	H	H	H	H	H	H
282	H	H	H	H	H	H	H
283	H	H	H	H	H	H	H
284	H	H	H	H	H	H	H
285	H	H	H	H	H	H	H
286	H	H	H	H	H	H	H

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COLUMN 41:

Table 9 (continued), Lines 287-300 should read

[illegible]

COLUMN 41:

Table 9 (continued), Lines 261 and 276 should read

[illegible]

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 42:

Table 10 (continued), "A'" should read --A'--.

COLUMN 43:

Table 10 (continued), "B'" should read --B'--.

COLUMN 46:

Table 11 (continued), "Ig2'" should read --Iq2--.

COLUMN 49:

Table 12, Lines 381-387 should read

No	A				A'				B			
	R1	R2	R3	R4	R1	R2	R3	R4	R5	R6	R7	R8
381	H	CH3O	H	H	-	-	-	-	H	H	H	H
382	H	C2H5O	H	H	-	-	-	-	H	H	H	H
383	H	C2H5O	H	H	-	-	-	-	H	H	H	F
384	H	C2H5O	H	H	-	-	-	-	H	H	H	H
385	H	C2H5O	H	H	H	H	H	H	H	H	H	H
386	H	C2H5O	H	H	-	-	-	-	H	H	H	H
387	H	C2H5O	H	H	-	-	-	-	H	H	H	H

--; and

Table 12 (continued), Line 398 should be deleted.

COLUMN 51:

Table 12 (continued), "B'" should read --B'--; and "409 H" should read  
--409 F--; and

Table 12 (continued), Line 398 should be deleted.

## CERTIFICATE OF CORRECTION

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 55:

Table 14 (continued).

No	R1	R2	R3	R4	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
460	F	F	F	F	-	-	F	F	F	F	F	F		
461	F	F	F	F	-	-	-	F	F	F	F	F	F	
462	F	F	F	F	-	-	-	-	F	F	F	F	F	F

should read

No	A				A'				B					
	R1	R2	R3	R4	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
460	F	F	F	F	-	-	-	-	F	F	F	F	F	F
461	F	F	F	F	-	-	-	-	F	F	F	F	F	F
462	F	F	F	F	-	-	-	-	F	F	F	F	F	F

COLUMN 55:

Table 14 (continued), “B” should read --B"--.

COLUMN 57:

Table 14 (continued), Insert --Table 14-2B

[illegible]

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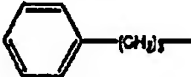
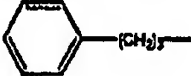
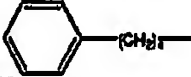
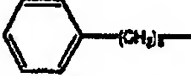
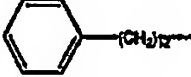
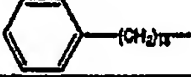
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COLUMN 57:

Table 14 (continued), Insert (cont'd)

--

No	A				A'				B						B'						B''					
	R1	R2	R3	R4	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R5	R6	R7	R8	R9	R10	R5	R6	R7	R8	R9	R10
491	H		H	H	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	-	-	-	-	-	-
492	II		H	H	-	-	-	-	H	H	H	H	H	II	-	-	-	-	-	-	-	-	-	-	-	-
493	H		H	H	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	-	-	-	-	-	-
494	H		H	H	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	H	H	H	H	-	-
495	H		H	H	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	H	H	C2H5	H	-	-
496	H		CH3	H	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	H	H	H	H	H	H
497	H	H	F	F	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	-	-	-	-	-	-

No	A				A'				B						B'						B''					
	R1	R2	R3	R4	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R5	R6	R7	R8	R9	R10	R5	R6	R7	R8	R9	R10
498	H	H	F	F	-	-	-	-	H	H	H	F	H	H	-	-	-	-	-	-	-	-	-	-	-	-
499	H	H	F	F	-	-	-	-	H	H	H	H	C6H13	H	-	-	-	-	-	-	-	-	-	-	-	-
500	H	H	F	F	H	H	H	H	H	H	H	H	H	H	H	H	H	H	-	-	-	-	-	-	-	-
501	H	H	F	F	-	-	-	-	H	II	H	H	H	H	-	-	-	-	-	-	-	-	-	-	-	-
502	H	H	F	F	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	-	-	-	-	-	-
503	H	H	F	F	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	-	-	-	-	-	-
504	H	H	F	F	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	-	-	-	-	-	-
505	H	H	F	F	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	H	H	H	H	-	-
506	H	H	F	F	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	H	H	C4H9	H	-	-
507	H	H	F	F	-	-	-	-	H	H	H	H	H	H	-	-	-	-	-	-	H	H	H	H	H	H
508	H	CH3	F	F	-	-	-	-	H	H	H	CF3	H	H	-	-	-	-	-	-	-	-	-	-	-	-
509	H	CH3	F	F	-	-	-	-	H	H	H	F	H	H	-	-	-	-	-	-	-	-	-	-	-	-

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COLUMN 58:

Table 15, Line 545, "H" should read --F--.

COLUMN 67:

Table 23, Line 785, "HHHH" should read --HHFH--.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 69:

Table 22, Line 763, "Iq5" should read --Iq6--.

COLUMN 71:

Table 23 (continued), Line 795, "--HHH" should read ---HFH--.

COLUMN 73:

Table 24, "Luminesceance" should read --Luminescence--.

COLUMN 83:

Line 48, "acid.acid." should read --acid.--; and  
Line 55, "yield 0.78" should read --yield = 0.78--.

COLUMN 85:

Line 23, "Ir(PPY)<sub>3</sub>." should read --Ir(ppy)<sub>3</sub>.--; and  
Line 35, "Ir(PPY)<sub>3</sub>." should read --Ir(ppy)<sub>3</sub>.--.

COLUMN 86:

Line 65, "C<sup>2</sup> N" should read --C<sup>2</sup>, N--.

COLUMN 87:

Line 3, "C<sup>2</sup><sub>1</sub> N)-iridium" should read --C<sup>2</sup>, N)-iridium--.

COLUMN 88:

Line 55, "C<sup>2</sup><sub>1</sub> N]" should read --C<sup>2</sup>, N]--.

COLUMN 89:

Line 18, "C<sup>2</sup><sub>1</sub> N]" should read --C<sup>2</sup>, N]--; and  
Line 30, "Ir(PPY)<sub>3</sub>" should read --Ir(ppy)<sub>3</sub>--.



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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 90:

Line 1, "Ir(pPY)<sub>3</sub>" should read --Ir(ppy)<sub>3</sub>--;  
Line 7, "Ir(PPY)<sub>3</sub>" should read --Ir(ppy)<sub>3</sub>--;  
Line 16, "C<sup>2</sup>]N" should read --C<sup>2</sup>, N]--;  
Line 29, "C<sup>2</sup>, N" should read --C<sup>2</sup>, N]--;  
Line 30, "[μ-dichloro)" should read --(μ-dichloro)--;  
Line 54, "Bis [-(5,6" should read --Bis[1-(5,6--; and  
Line 66, "N(μ-dichloro)" should read --N](μ-dichloro)--.

COLUMN 91:

Line 15, "C<sup>2</sup>]N(μ-" should read --C<sup>2</sup>, N](μ- --;  
Line 20, "trifluoromethylisoquinoline" should read  
--trifluoromethylisoquinoline--;  
Line 27, "1-phenyl-41" should read --1-phenyl-4--; and  
Line 35, "trifluoromethylisoquinoline-C N]" should read  
--trifluoromethylisoquinoline-C<sup>2</sup>, N]--.

COLUMN 92:

Line 50, "4-trifluoromethyl quinoline" should read  
--4-trifluoromethylquinoline--.

COLUMN 94:

Line 34, "Tris[3,4,5,6" should read --Tris[1-(3,4,5,6--.

COLUMN 95:

Line 64, "C<sup>2</sup>]N" should read --C<sup>2</sup>, N]--.

COLUMN 96:

Line 11, "C<sup>2</sup>]N" should read --C<sup>2</sup>, N]--.

COLUMN 97:

Line 9, "C<sup>2</sup><sub>1</sub>N)" should read --C<sup>2</sup>, N)--.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

COLUMN 98:

Line 32, "C<sup>2</sup> ]N" should read --C<sup>2</sup>, N]--.

COLUMN 100:

Line 52, "(1-dichloro)" should read --(μ-dichloro)--; and  
Line 63, "1H-perfluoroheptyloxyphenyl]" should read  
--1H-perfluoroheptyloxy)phenyl]--.

COLUMN 101:

Line 6, "I-phe-" should read --1-phe--;  
Line 10, "C<sup>2</sup>, N}" should read --C<sup>2</sup>, N}--;  
Line 37, "(1-phenylphenyl" should read --1-phenyl--; and  
Line 53, "(pu-" should read --μ- --.

COLUMN 102:

Line 10-15, " " should read --  --; and

"  $\xrightarrow[\text{in MeOH}]{\text{CH}_3\text{COONa}, \text{PdCl}_2 \cdot \text{H}_2}$  " should read --  $\xrightarrow[\text{in MeOH}]{\text{CH}_3\text{COONa}, \text{PdCl}_2, \text{H}_2}$  --; and

Line 43, "azaiso-quino-" should read --azaisoquino--.

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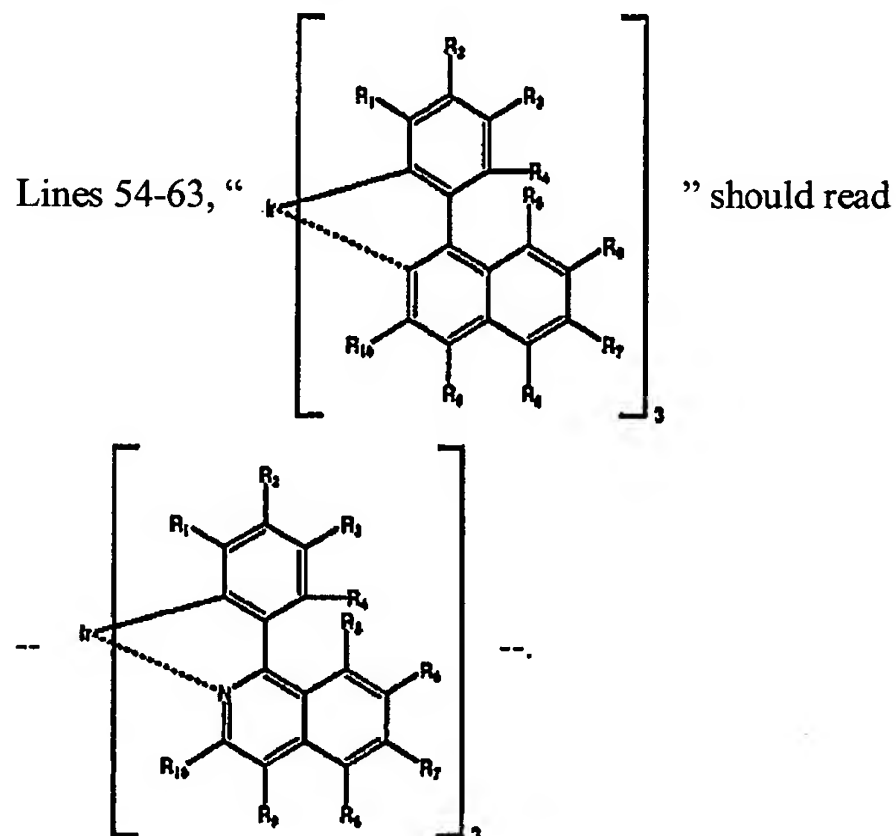
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COLUMN 104:

Line 2, "azaiboquinoline" should read --azaisoquinoline--;  
Line 5, " $C^2_1 N$ " should read -- $C^2$ , N)--; and



COLUMN 105:

Line 2, "--CH" should be deleted;  
Line 3, "(HC<sub>3</sub>)<sub>2</sub>," should read --CH(CH<sub>3</sub>)<sub>2</sub>--; and "C<sub>3</sub>H<sub>7</sub>O--," should read --C<sub>3</sub>H<sub>7</sub>O--;  
Line 5, "--Si(C<sub>4</sub>H<sub>9</sub>)" should read ---Si(C<sub>4</sub>H<sub>9</sub>)<sub>3</sub>--; and  
Line 6, "3," should be deleted.

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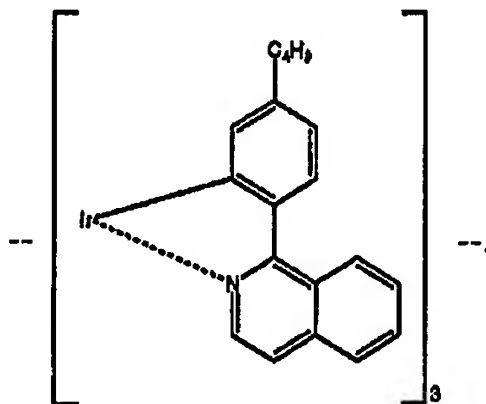
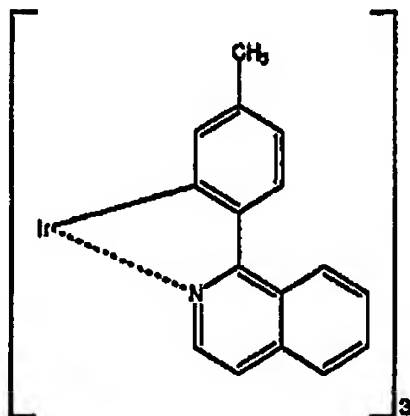
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COLUMN 106:

Lines 55-65, “



COLUMN 112:

Line 3, “claim 22,” should read --claim 25,--.

Signed and Sealed this

Twenty-sixth Day of June, 2007

JON W. DUDAS  
Director of the United States Patent and Trademark Office